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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,224	11/07/2005	Ole-Bendt Rasmussen	50000-OR03	9368
23873 7590 01/20/2010 ROBERT W STROZIER, P.L.L.C PO BOX 429 BELLAIRE, TX 77402-0429			EXAMINER SIMONE, CATHERINE A	
			ART UNIT 1794	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/538,224

Applicant(s)

RASMUSSEN, OLE-BENDT

Examiner

CATHERINE SIMONE

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 100-140, 173 and 199-213 is/are pending in the application.
- 4a) Of the above claim(s) 140 and 173 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 100-139, 199-211 and 213 is/are rejected.
- 7) ☒ Claim(s) 212 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/8/2009 & 11/11/2009 (2x).
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Withdrawn Rejections

1. The 35 U.S.C. 112, second paragraph, rejections of claims 100-139 of record in the previous Office Action mailed 6/9/2009 on Pages 2-6 have been withdrawn due to the Applicant's amendment filed 10/8/2009.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 104 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation "the average thickness of at least one of the plies is at least 15% of the ply's maximum thickness" in claim 104 is deemed new matter. The Specification, as originally filed, does not provide clear support for this new limitation. Thus, this new limitation is deemed new matter.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 204 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 204 recites the broad recitation "is no less than 50 MPa", and the claim also recites "still more preferably no less than 75 MPa", which is the narrower statement of the range/limitation. Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 100-105, 110, 111, 121, 122, 127, 128, 130-138, 199-203 and 213 are rejected under 35 U.S.C. 102(b) as being anticipated by Clark (US 4,588,631).

Regarding claim 100, Clark discloses a flexible laminate comprising a monofilm-formed flexible ply A (Fig. 3, one of corrugated sheets 15; and col. 4, line 27 and lines 30-35), and another monofilm-formed flexible ply B (Fig. 3, another one of corrugated sheets 15; and col. 4, line 27 and lines 30-35), both comprising orientable thermoplastic polymer materials (col. 4, lines 46-53), in which the ply A (Fig. 3, one of sheets 15) has a fluted (corrugated) configuration and the ply B (Fig. 3, another one of sheets 15) on a first side is adhesively bonded in bonding zones to crests on a first side of the ply A (Fig. 3; col. 5, lines 5-30), where the ply B also has a fluted (corrugated) configuration (Fig. 3, sheet 15), a flute direction of the ply B forms an angle of 90° to a flute direction of the ply A (Fig. 3, sheets 15) and the bonding zones are on crests of the first side of the ply B to produce spot bonds with the crests on the first side of the ply A (Fig. 3, sheets 15; col. 5, lines 8-30), the adhesive bonding is directly the ply A to the ply B (Fig. 3, sheets 15) and is established through a lamination layer on either the ply A or the ply B (col. 5, lines 11-25), and the wavelengths of the flutes in the ply A and/ or the ply B are deemed no longer than 5 mm, and the wavelengths of the flutes in both the ply A and the ply B are deemed less than 10 mm (col. 8, lines 51-53), since the peak-to-peak distance of the waves of the corrugated sheet is 0.0476 inches (1.2 mm).

Regarding claim 101, Clark discloses the thickness of each of the plies being substantially the same in bonded and unbonded zones (Fig. 3, sheets 15 and Fig. 1, t_2 and col. 9, lines 65-68).

Regarding claim 102, Clark discloses the flute wavelength in each of the two plies being no more than 4 mm, since the peak-to-peak distance of the waves of the corrugated sheet is 0.0476 inches (1.2 mm) (col. 8, lines 51-53).

Regarding claim 103, in Fig. 3 of Clark, it is deemed to show that each of the two plies (15) has a flute with a curved length on average of at least 5% longer than the linear wavelength (also see Fig. 1).

Regarding claim 104, the average thickness of at least one of the plies is at least 15% of the ply's maximum thickness (Table 2 and col. 9, line 68).

Regarding claim 105, a width of each bonding zone (tips of the crests of the waves in Figs. 1 and 3) is deemed to be no less than 15% of the flute wavelength (col. 9, line 67).

Regarding claim 110, the flute direction of the ply A is substantially perpendicular to the flute direction of the ply B (Fig. 3, sheets 15).

Regarding claim 111, one of the two flute directions essentially coincide with a machine direction of lamination (Fig. 3 and col. 8, lines 34-40).

Regarding claim 121, the tips of the crests of the flutes in Figs. 1 and 3 are deemed first attenuated zones and are deemed substantially coincident with the bonding zones (the tips of the crests of the flutes in Figs. 1 and 3).

Regarding claim 122, the first attenuated zones are present at least in one of the two plies (Fig. 3, tips of crests of the flutes) and characterized by second solid-state-attenuated zones between each pair of adjacent first attenuated zones, the second attenuated zones being narrower than the first attenuated zones and located on the non-bonded crests of the respective ply (see Figs. 1 and 3).

Regarding claims 127 and 128, note at least some of the flutes in both plies are flattened at intervals and preferably bonded across each ones entire width at the flattened locations to make the two arrays of flutes form closed pockets (Figs. 1 and 3), and the flattened portions are all of the flutes in an array (Figs. 1 and 3).

Regarding claims 130 and 131, note at least some of the channels formed by the flutes in plies A and B contain a filling material in liquid form which is deemed a preservative (effluent; col. 6, lines 8-10).

Regarding claim 132, note both the ply A and the ply B are supplied with a multitude of perforations, whereby the perforations do not reach into the spot bonds, and the perforations in the ply A are displaced from the perforations in the ply B so as to cause gas or liquid when passing through the laminate, to run a distance through the flutes substantially parallel to the main surfaces of the laminate (openings; col. 4, lines 4-7).

Regarding claim 133, the channels contain filling material (effluent; col. 6, lines 8-10).

Regarding claim 134, the limitation is a functional limitation and is deemed to be an inherent characteristic of the prior art, since Clark discloses a laminate having the same structure as the claimed laminate (see above). MPEP 2114 and 2173.05(g).

Regarding claim 135, note fiber film portions protruding from the borders of the perforations of at least one surface of the laminate (col. 7, lines 63-66).

Regarding claims 136-138, the limitations “used as a sanitary backsheet on a diaper or as a sheet for covering a patient during surgery”, “used for insulation of buildings”, and “used as a geotextile” are recitations of the intended use of the claimed invention. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed

invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. MPEP 2111.02 (II) and 2114. As shown above, Clark teaches the same structure of the claimed laminate. Therefore, the laminate of Clark is capable of performing the intended use as claimed.

Regarding claim 199, Clark discloses the flute wavelength in each of the two plies being no more than 3 mm, since the peak-to-peak distance of the waves of the corrugated sheet is 0.0476 inches (1.2 mm) (col. 8, lines 51-53).

Regarding claim 200, Clark discloses the flute wavelength in each of the two plies being no more than 2 mm, since the peak-to-peak distance of the waves of the corrugated sheet is 0.0476 inches (1.2 mm) (col. 8, lines 51-53).

Regarding claim 201, in Fig. 3 of Clark, it is deemed to show that each of the two plies (15) has a flute with a curved length on average of at least 10% longer than the linear wavelength (also see Fig. 1).

Regarding claim 202, the width of each bonding zone (tips of the crests of the waves in Figs. 1 and 3) is deemed to be no less than 20% of the flute wavelength (col. 9, line 67).

Regarding claim 203, the width of each bonding zone (tips of the crests of the waves in Figs. 1 and 3) is deemed to be no less than 30% of the flute wavelength (col. 9, line 67).

Regarding claim 213, the laminate further includes micro-perforations established in the flutes, which enhance the effect of the preservative (openings; col. 4, lines 4-7).

9. Claims 100, 102, 107, 110-126, 129, 139, 199, 200 and 204-211 are rejected under 35 U.S.C. 102(b) as being anticipated by Rasmussen (US 5,626,944).

Regarding claim 100, Rasmussen discloses a flexible laminate comprising a multifilm-formed flexible ply A, and another multifilm-formed flexible ply B (col. 6, lines 55-65), both comprising orientable thermoplastic polymer material (col. 16, lines 40-50), in which the ply A has a fluted (ribbed) configuration (col. 5, lines 53-57) and the ply B on a first side is adhesively bonded in bonding zones to crests on a first side of the ply A (col. 6, lines 18-33 and lines 55-65), where the ply B also has a fluted (ribbed) configuration (col. 5, lines 53-57), the flute direction of the ply B is deemed to form an angle of 90° to the flute direction of ply A, since a cross-laminate is being formed (see abstract), and the bonding zones are on the crests of the first side of the ply B to produce spot bonds with the crests on the first side of the ply A (col. 6, lines 18-33), the adhesive bonding is directly the ply A to the ply B and is established through a lamination layer on either the ply A or the ply B (col. 6, lines 55-65), and the wavelengths of the flutes in the ply A and/ or the ply B are no longer than 5 mm, and the wavelengths of the flutes in both the ply A and the ply B are less than 10 mm (col. 4, lines 35-37).

Regarding claim 102, Rasmussen discloses the flute wavelength in each of the two plies being no more than 4 mm (col. 4, lines 35-37).

Regarding claim 107, the flutes are curved or zig-zagged along one direction (claim 10).

Regarding claim 110, the flute direction of the ply A is substantially perpendicular to the flute direction of the ply B, since a cross-laminate is being formed (claim 1).

Regarding claim 111, one of the two directions of the flutes essentially coincide with a machine direction of the lamination (see abstract).

Regarding claim 112, the ply A is molecularly oriented in a direction parallel to the direction of its flutes (claim 1).

Regarding claim 113, the ply B is molecularly oriented (claim 1).

Regarding claims 114, 204 and 205, the limitation is deemed a latent property of the prior art, since the composition and/or structure of the laminate in Rasmussen is substantially identical to that of the claimed laminate. It has been held that mere recognition of latent properties in the prior art does not render nonobvious an otherwise known invention. MPEP 2145 (II).

Regarding claim 115, the ply B inherently has a lower coefficient of elasticity than the ply A, both as measured in the direction perpendicular to the flute direction of the ply A, since the laminate in Rasmussen has substantially the same composition and/or structure as that of the claimed laminate.

Regarding claims 116 and 206, the ply B is a thermoplastic elastomer (col. 6, lines 55-65), therefore the choice of material for the ply B and of depth of the ply A's fluting is inherently such that by stretching of the laminate perpendicular to the direction of the ply A's fluting up to the point where the ply A's waving has disappeared, the ply B still has not undergone any significant plastic deformation.

Regarding claim 117, the ply B is molecularly oriented mainly in a direction parallel to the direction of its flutes or in a direction close to the latter as determined by shrinkage tests (claim 1).

Regarding claim 118, the ply A is composed of several films, and the main direction of molecular orientation, is the resultant of different monoaxial or biaxial orientations in the films optionally mutually differently directed (claims 1 and 9).

Regarding claim 119, the ply B is composed of several films, and the main direction of molecular orientation, is the resultant of different monoaxial or biaxial orientations in the films optionally mutually differently directed (claims 1 and 9).

Regarding claim 120 and 207, the first attenuated zones are present in at least one of the two plies wherein if such zones of attenuated ply extend in their transverse direction beyond the corresponding zones of bonding into non-bonded zones of the ply, the extensions within each non-bonded zone are limited to a total width which leaves more than half of and no less than 70% of a width of the non-bonded zone as not belonging to any first attenuated zone, these widths being the distance measured along the curved surfaces (see Figure 1).

Regarding claim 121, the first attenuated zones are present in at least one of the plies and in which the bonding zones are substantially coincident with the first attenuated zones (Figs. 1 and 4).

Regarding claim 122, the first attenuated zones are present at least in one of the two plies and characterized by a second solid-state-attenuated zone between each pair of adjacent first attenuated zones, the second attenuated zones being narrower than the first attenuated zones and located on the non-bonded crests of the respective ply (Fig. 4).

Regarding claims 123, 208 and 209, note at least one of the two plies exhibits solid-state-attenuated zones wherein the first attenuated zones of the ply are attenuated so that the minimum-thickness in such zone is less than 75%, less than 50% and less than 30% of the maximum thickness of the ply in the non-bonded zone (Figs. 1 and 4).

Regarding claims 124 and 210, plies A and B consist of polyolefin, which is inherently orientable at room temperature, since it is the same material used for the claimed plies A and B (claim 9).

Regarding claim 125, spot bonds between the plies A and B is effected through a lower melting surface layer on at least one of the plies, formed in a coextrusion process (col. 6, lines 55-65).

Regarding claim 126, note at least one of the plies comprises a barrier film designed for protection against oxygen and other gaseous materials (col. 6, lines 55-65).

Regarding claims 129 and 211, the coefficient of elasticity E in at least one of the plies, measured in the unbonded zone of the ply in the direction parallel to the flute (rib), as an average over the unbonded zone is inherently no less than 700 MPa and no less than 1000 MPa, since the laminate in Rasmussen has substantially the same composition and/or structure as that of the claimed laminate.

Regarding claim 139, Rasmussen discloses a bag made from the laminate wherein the flutes on one of the two major surfaces of the bag are substantially perpendicular to the flutes on the other major surface of the bag (col. 1, lines 26-29 and col. 5, lines 65-66).

Regarding claim 199, Rasmussen discloses the flute wavelength in each of the two plies being no more than 3 mm (col. 4, lines 35-37).

Regarding claim 200, Rasmussen discloses the flute wavelength in each of the two plies being no more than 2 mm (col. 4, lines 35-37).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 106-108 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark (US 4,588,631).

Clark discloses the claimed laminate as described above except for the flutes extending in a substantially rectilinear shape, being curved or zig-zagging and/or branched, and being differently shaped in a pattern which gives a visual effect showing a name, text, logo or similar visual effect. It would have been an obvious matter of design choice to change the shape of the flutes in Clark to be in a rectilinear shape, be curved or zig-zagging and/or branched, and be differently shaped in a pattern which gives a visual effect showing a name, text, logo or similar, since such a modification would have involved a mere change in the shape of the flutes. A change in shape is generally recognized as being within the level of ordinary skill in the art, absent unexpected results. MPEP 2144.04 (IV). One of ordinary skill in the art would have been motivated to change the shape of the flutes in Clark to be rectilinear in shape, be curved or zig-zagging and/or branched, and be differently shaped in a pattern which gives a visual effect showing a name, text, logo or similar visual effect in order to change the visual appearance of the laminate. It is desirable to change the visual appearance of the laminate in Clark in order to make the laminate more appealing to the consumer.

12. Claim 109 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clark (US 4,588,631).

Clark discloses the claimed laminate as described above except for the plies having different colors. It would have been an obvious matter of design choice to change the color of the plies in Clark to be of different colors, since such a modification would have involved a mere change in the aesthetics of the plies. A change in the aesthetics is generally recognized as being within the level of ordinary skill in the art, absent unexpected results. MPEP 2144.04 (I). One of ordinary skill in the art would have been motivated to change the color of the plies in Clark to be differently colored in order to change the visual attractiveness of the laminate. It is desirable to change the visual attractiveness of the laminate in Clark in order to make the laminate more appealing to the consumer.

13. Claims 106 and 108 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rasmussen (US 5,626,944).

Rasmussen discloses the claimed laminate as described above except for the flutes extending in a substantially rectilinear shape and being differently shaped in a pattern which gives a visual effect showing a name, text, logo or similar visual effect. It would have been an obvious matter of design choice to change the shape of the flutes (ribs) in Rasmussen to be in a rectilinear shape and be differently shaped in a pattern which gives a visual effect showing a name, text, logo or similar visual effect, since such a modification would have involved a mere change in the shape of the flutes. A change in shape is generally recognized as being within the level of ordinary skill in the art, absent unexpected results. MPEP 2144.04 (IV). One of ordinary skill in the art would have been motivated to change the shape of the flutes (ribs) in Rasmussen

to be rectilinear in shape and be differently shaped in a pattern which gives a visual effect showing a name, text, logo or similar visual effect in order to change the visual appearance of the laminate. It is desirable to change the visual appearance of the laminate in Rasmussen in order to make the laminate more appealing to the consumer.

14. Claim 109 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rasmussen (US 5,626,944).

Rasmussen discloses the claimed laminate as described above except for the plies having different colors. It would have been an obvious matter of design choice to change the color of the plies in Rasmussen to be of different colors, since such a modification would have involved a mere change in the aesthetics of the plies. A change in the aesthetics is generally recognized as being within the level of ordinary skill in the art, absent unexpected results. MPEP 2144.04 (I). One of ordinary skill in the art would have been motivated to change the color of the plies in Rasmussen to be differently colored in order to change the visual attractiveness of the laminate. It is desirable to change the visual attractiveness of the laminate in Rasmussen in order to make the laminate more appealing to the consumer.

Allowable Subject Matter

15. Claim 212 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. The following is a statement of reasons for the indication of allowable subject matter:
The closest prior art of record, Clark (US 4,588,631) and Rasmussen (US 5,626,944), each fail to

anticipate or render obvious the distinct feature of a “preservative selected from the group consisting of an oxygen scavenger, ethylene scavenger and a biocide, as recited in claim 212.

Response to Arguments

17. Applicant's arguments filed 10/8/2009 have been fully considered but they are not persuasive.

Applicant argues “The Clark structure shown in Fig. 3 requires rigid materials, which relates to structures pictorially similar to the structures of this invention. The present invention relates to flexible material. Bonding of the Clark Fig. 3 structures cannot be performed in a laminating process, but must be done using a wholly different bonding system as the bonding is not between thermoplastics, but between fiber glass composites, metals or ceramics, none of which can be laminated in the laminating processes of this invention. Because Clark does not disclose flexible laminates constructed of flexible plies that are bonding through a lamination process which can form attenuated zones (Clark bonds using solvent dissolution), Clark cannot anticipate claims 100-105, 110, 111, 121, 122, 127, 128 and 130-138 and claims 106-109 are not obvious over Clark”.

This argument is not deemed persuasive. It is to be pointed out that the corrugated structure taught in Clark has some degree of flexibility (see col. 4, lines 25-29 and lines 30-33). Also, the material making up the corrugated structure in Clark can be thermoplastic (see col. 4, line 46 and col. 8, lines 34-35) and bonding of the structures in Clark can be performed in a laminating process (col. 5, lines 8-30). Accordingly, Clark discloses a flexible laminate constructed of flexible plies that are bonded through a lamination process, as required by claim

100. Thus, Clark anticipates claims 100-105, 110, 111, 121, 122, 127, 128 and 130-138 and claims 106-109 are obvious over Clark.

Applicant further argues “Rasmussen ‘944 does not disclose laminating fluted plies, where the fluted plies bond at points of intersection of the flute crests. While Rasmussen ‘944 does disclose waved structures, the waves are formed into the cross-laminate after the cross-laminated is formed. In fact, the present invention can use cross-laminates of Rasmussen ‘944 in the construction of the fluted plies. Because Rasmussen ‘944 does not disclose laminates comprising crossing fluted plies bonded at points of intersection, Rasmussen ‘944 cannot anticipate claims 100, 102, 107, 110-126, 129 and 139, and claims 106, 108 and 109 are not obvious over Rasmussen”.

This argument is not deemed persuasive. Rasmussen ‘944 discloses a cross-laminate of two fluted (waved) plies (see claim 1) which are bonded at points of intersection (flex-lines) (see col. 6, lines 18-33). Accordingly, Rasmussen ‘944 discloses laminating fluted plies, where the fluted plies bond at points of intersection of the flute crests, as required by claim 100. Thus, Rasmussen ‘944 anticipates claims 100, 102, 107, 110-126, 129 and 139, and claims 106, 108 and 109 are obvious over Rasmussen.

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the

THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CATHERINE SIMONE whose telephone number is (571)272-1501. The examiner can normally be reached on Monday-Friday 9:30-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R. Sample/
Supervisory Patent Examiner, Art Unit 1794

/CAS/
Catherine A. Simone
Examiner, Art Unit 1794
January 13, 2010